Towards a Minimalist Account of the VOS order in Greek

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Abstract

In this paper I re-examine the VOS order in Greek with either object or subject information focus within the concept of phase (Chomsky 2000, 2001). The difference between VOS with object focus and VOS with subject focus is accounted for in terms of the distinction between movement out of a phase and movement within a phase, as proposed by Legate (2003). If the Nuclear Stress Rule applies to the phase, then an element moving from a position final in the verb phrase out of the phase should bear primary stress (VOS with object focus), while an element moving from a position final in the verb phrase within the same phase should not (VOS with subject focus).

Keywords: word order, Greek, information focus, p-movement, Focus Prominence Rule (FPR), Nuclear Stress Rule (NSR), phase, movement out of/within a phase

1. Introduction

In this paper I direct my attention to the order of constituents in Greek in relation to information focus. In particular, I deal with the syntactic derivation of the Verb-Object-Subject (VOS) order with information focus as in (1):

(1) efaje tin turta o janis
    ate-3sg the cake-acc the janis-nom
‘John ate the cake.’

My aim is to re-examine the issues concerning the VOS order with object and subject focus, as in (2) and (3) respectively, within the recent theoretical
advances of the Minimalist Program (Chomsky 2000, 2001), and specifically with respect to the concept of phase:

(2) efage \textit{tin turta}^{1} \quad \text{o janis} \quad \text{(object focus)}
\text{ate-3SG} \quad \text{the cake-ACC} \quad \text{the janis-NOM}
\text{\textquoteleft} John ate the cake.\textquoteright

(3) efage \textit{tin turta} \quad \text{o janis} \quad \text{(subject focus)}
\text{ate-3SG} \quad \text{the cake-ACC} \quad \text{the janis-NOM}
\text{\textquoteleft} John ate the cake.\textquoteright

More specifically, the difference between (2) and (3) is accounted for in terms of the distinction between movement out of a phase and movement within a phase, as proposed by Legate (2003).

The present paper is organized as follows: First, the general properties of the VOS order are briefly outlined. Second, I present an analysis of the VOS order with object and subject focus, respectively. Subsequently, I refer to Chomsky’s (2000, 2001) phase and to Legate’s (2003) movement out of/within a phase, which constitute the basis for my analysis of the VOS order within the recent theoretical advances of the minimalist framework, which immediately follows. Finally, there is a section presenting some problems and a concluding section summarizing the discussion.

2. The VOS order in Greek

The Verb-Object-Subject (VOS) order in Greek has been recently discussed by Alexiadou (1997, 1999), Φιλιππάκη-Warburton (2001), Haidou (2000), Georgiades (2001), Roussou (2001), Roussou and Tsimpli (2002) and Sifaki (2003, 2004). It is one of the six alternative constituent linearization patterns of Greek. Despite its limited use, VOS is one of those orders that can be rendered with a neutral intonation, without the necessary presence of a clitic. The neutral intonation is the one realized by the Nuclear Stress Rule (NSR) (Chomsky and Halle 1968, as revised by Cinque 1993, and Zubizarreta 1998), where the constituent located at the end of the sentence and in the lowest node in the c-command ordering bears the main stress (information focus).

It has been claimed (with the exception of Alexiadou 1997, 1999) that the VOS order can involve more than one intonation pattern. More specifically, it can involve focus either on the object, the verb, the VP or the subject. On the basis of experimental data, Georgiades and Sfakianaki (2004) have shown

\footnote{Italics in the examples denote information focus.}
that object focus is the predominant pattern for the VOS order in Greek (31%), while the subject focus option is not that common (18%). This view is also shared by Keller and Alexopoulou (2001). According to their data, the VOS order is more acceptable with object focus rather than with subject focus.2

The question that arises is how this order with the accompanying different intonation patterns is formally derived.

3. The analysis of the VOS order

3.1 VOS with object focus (no comma intonation)

It has been argued in the literature that in structures where object clitics coexist with their corresponding DP-doubles (clitic doubling and CLLD/CLRD), the clitics are arguments, while their DP-doubles are adjuncts. Philippaki-Warburton et al. (2004) assume that the relation between the clitics and their DP-doubles is that of coindexation, with the double occupying an adjunct position, either a peripheral one (clitic left/right dislocation), or a vP-internal one (doubling without comma intonation), as in (4):

\[
(4) \quad [cP \text{ DP}_i [cP \ldots [iP \text{ clitic}_i [vP \text{ DP}_i [vP \ldots [t_{\text{clitic}}]]]]]]
\]

In analogous fashion, and given the parallel between subject and object clitics and their coindexed DPs (see Philippaki-Warburton 1987), I would like to put forward that in the VOS order with object focus, when there is no comma

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2 At this point, it is worth considering an issue raised by an anonymous reviewer, namely the context where a VOS order with subject focus would occur. I suppose a potential context would be a narrow subject focus question. I totally agree with the reviewer, however, that this pattern will never be the only possible utterance in such a context, as there are other more preferable structures (see Philippaki-Warburton 1985: 120-121). This is also evident in the data by Georgiafentis and Stakianaki (2004), where it is revealed that the VOS order is dispreferred for subject focusing. Instead, the speakers mostly opt for the orders OclVS (36%) and SVO (50%) in such cases (see also Keller and Alexopoulou 2001, and Roussou and Tsimpili 2002). Yet, I think that one cannot exclude the possibility that the VOS with subject focus is one of the options available to the speakers, despite the fact that it is not frequently used.
intonation involved, the subject is right adjoined (base generated) to the vP (cf. Tsimpili 1990, 1995 and Φυλλιτική-Warburton 2001), as in (5):

\[
\begin{align*}
\text{Spec} & \quad \text{I'} \\
\text{I} & \quad \text{vP} \\
\text{V-v (of) I} & \quad \text{vP} \\
\text{pro} & \quad \text{v'} \\
\text{tv-v} & \quad \text{VP} \\
\text{Spec} & \quad \text{V'} \\
\text{tv} & \quad \text{DP-object (tis twater)}
\end{align*}
\]

In this configuration the DP-object is in the lowest node in the c-command ordering and is thus assigned main prominence via the NSR. This outcome is in agreement with the outcome of the Focus Prominence Rule (FPR) (Zubizarreta 1998), according to which main prominence should be assigned to the DP-object (information focus).

3.2 VOS with subject focus

Georgiafentis (2001: 145-147) maintains that the VOS order with subject focus in Greek is derived in the following way: We start from the basic VSO order, where the subject has been generated in [Spec, vP] (vP-internal hypothesis, Koopman and Sportiche 1991), as in (6):

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3 This pattern can be extended to VOS orders with object focus and comma intonation for the subject. In those cases it can be postulated that the DP-subject is adjoined to some higher projection (the IP, for instance) similarly to DP-doubles in CLLD/CLRD, which are adjoined to some more peripheral position (see also Haidou 2000 and Georgiafentis 2001 for this rendering of the VOS order).

4 The Focus Prominence Rule (FPR) goes as follows: Given twometrical sister nodes C_i (marked [+F]) and C_j (marked [-F]), C_i is more prominent than C_j (Zubizarreta 1998: 21).
In (6) the verb has already moved from its original position to \( v \) and then to \( I \) in order to license its features. According to Zubizarreta (1998: 139-146), p-movement applies in cases where two nodes \( \alpha \) and \( \beta \) have prosodically contradictory properties. Such a case arises in a well-defined situation: (1) \( \alpha \) and \( \beta \) are metrical sisters\(^5\) and (2) the FPR assigns main prominence to one node (say, to \( \alpha \)) and the NSR assigns main prominence to the other node (say, to \( \beta \)). In the case under investigation, the NSR would assign main prominence to the VP (and more specifically to the DP-object, given that the verb has already moved), since the VP is in the lowest node in the c-command ordering. Yet, this outcome would contradict the outcome of the FPR, according to which main prominence should be assigned to the DP-subject (information focus). In other words, the outcome of the two rules (i.e. the NSR and the FPR) would produce a prosodically contradictory situation. The purpose of p-movement is to undo this contradiction, i.e. to resolve the conflict between the NSR and the FPR, and to ensure that the focused constituent ends up at the rightmost edge of the phrase (i.e. in the lowest position in the c-command ordering). It affects only defocalized constituents and is local, in the sense that a defocalized constituent moves immediately above the focused constituent. In particular, in (6), the VP which contains only the DP-object p-moves to a position immediately above the DP-

\(^5\) Only maximal projections qualify as metrical sisters. Non-maximal projections are invisible to stress rules (Zubizarreta 1998: 41-44).
subject (locality), namely to [Spec, iTopP]. Thus, the DP-subject ends up in the lowest position in the c-command ordering and receives main prominence via the NSR.

4. Theoretical framework

4.1 Chomsky's (2000, 2001) phase

For Chomsky (2000, 2001), syntactic derivation proceeds in phases. A phase is a self-contained subsection of the derivation, beginning with the numeration and ending with Spell-Out. In other words, a phase is an active part of a derivation, namely a syntactic chunk consisting of a set of certain lexical and functional projections. For each sentence, an array of lexical items is selected from the lexicon (the lexical array is basically equivalent to the numeration, Chomsky 1995). For each phase, a subarray of lexical items is selected from the array, and is used to construct a phase. When this is done, another subarray is selected, until the array is used up. There are two functional categories that are crucial for identifying phases: the light verb \( v \) and the complementizer \( C \). The main phases then are \( vP \) and \( CP \).

A phase can be either strong or weak, depending on whether its main functional category is phi-complete. Chomsky proposes that if the light verb \( v \) is part of a transitive verb, then it is phi-complete. Furthermore, finite and control \( C \) are also phi-complete. Phi-complete \( v \) and \( C \) head strong phases. A strong phase, once completed, immediately proceeds to each of the PF and LF components for interpretation. A weak phase, on the other hand, waits until the next strong phase in order to proceed to the PF and LF components. Thus, a \( vP \) that assigns an external \( i \)-role (transitive predicate) is phi-complete and qualifies as a strong phase. On the contrary, a \( vP \) that does not assign an external \( i \)-role, either because this role has been suspended or because of the nature of the predicate, constitutes a weak phase and proceeds to the interface together with the next strong phase, i.e. the CP. It should be noted that it is not the entire phase, but rather the complement of the phase-defining head that is sent to the interface for interpretation at the point of Spell-Out. To exemplify, after the construction of the \( vP \) phase, for instance, VP undergoes Spell-Out.\(^6\)

Strong phases are subject to the Phase Impenetrability Condition (PIC), stated in (7):

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\(^6\) For multiple applications of Spell-Out see also Uriagereka (1999).
(7) **Phase-Impenetrability Condition:**

Given \( HP = [\alpha [H \beta]] \), take \( \beta \) to be the domain of \( H \) and \( \alpha \) (a hierarchy of one or more Specs) to be its edge. In phase \( \alpha \) with head \( H \), the domain of \( H \) is not accessible to operations outside \( \alpha \), only \( H \) and its edge are accessible to such operations (Chomsky 2000: 108, 2001: 13-14).

The PIC serves to place locality conditions on operations. Thus, the effect of this condition is that any elements that need to undergo movement outside of a phase must move to the phase edge before Spell-Out.

### 4.2 Legate's movement out of/within a phase

It is for the analysis of such examples as (8) and (9) below that Legate (2003) invokes the distinction between movement out of a phase and movement within a phase.

- (8) Mary liked the proposal that George left.
- (9) Please put them/the dishes away.

(from Legate 2003)

More specifically, for Legate the difference between (8), where the primary stress has been assigned to the shifted object, and (9), where the primary stress has been assigned to the rightmost element in the verb phrase, is the following: In (8) the object has moved out of the \( vP \) phase (movement from the object position of the embedded clause, see Vergnaud 1974, Kayne 1994), while in (9) the object has moved within the \( vP \) phase (short movement within the verb phrase). Assuming that the phrasing algorithm applies separately to products of each Spell-Out, the input to PF on the first phase (\( vP \)) of (8) is [left the proposal], whereas the input to PF on the first phase (\( vP \)) of (9) is [put the dishes away the dishes].

Legate (2003) assumes that the PF operation that deletes non-initial copies in a chain treats each phase as a separate unit. In (8) the phase contains only one occurrence of the DP ‘the proposal’, and thus the PF operation which deletes non-initial copies in a chain cannot apply to it. The phase proceeds to the application of the NSR and primary stress is assigned to ‘the proposal’. At a later phase, this occurrence of ‘the proposal’ will be deleted in favour of a higher occurrence, with the primary stress realized on the higher occurrence. In (9), on the other hand, the input to PF contains two occurrences of ‘the dishes’. Thus, the PF operation deleting non-initial copies applies, and deletes the lower copy. In the input to the NSR, ‘away’ is the rightmost element in the verb phrase, and receives primary stress accordingly.
5. Towards a phase based analysis of the VOS order

As mentioned earlier, phases are chunks of syntactic structure that are sent off to PF and LF for interpretation before the derivation continues. Thus, a difference in phase structure can give rise to syntactic and phonological differences. As we will see, this prediction is confirmed.

Consider the example under investigation, which involves a transitive vP, and thus qualifies as a strong phase. A sample derivation of the sentence is sketched in (10) – (14). First, the array is listed in (10). It is a selection of lexical items, including five functional heads and three lexical words.

(10) The array: C, [D o], [N janis] T, V, [V efaje], [D tin], [N turta]

From (10) the six-item subarray in (11) can be selected. As required, it contains one instance of v.

(11) Subarray 1: [D o], [N janis], V, [V efaje], [D tin], [N turta]

Now the operation Merge recursively combines elements in subarray 1 pairwise, as in (12):

(12) a. Merge D, N: [DP [D o] [N janis]]
    b. Merge D, N: [DP [D tin] [N turta]]
    c. Merge V, DP: [VP [V efaje] [DP tin turta]]
    d. Merge v, VP: [vP v [VP efaje [DP tin turta]]]
    e. Merge DP, vP: [vP [DP o janis] [vP v [VP efaje [DP tin turta]]]]

At stage (12e) all the items in subarray 1 are used up and Merge cannot be applied again. At this point another subarray can be selected.

(13) Subarray 2: C, T

This is a subarray because it contains one instance of C. It also happens to exhaust the array. Now these items can be combined with the vP constructed in (12). Specifically, T may be combined with vP as in (14a). Assuming that T has strong features, Move will apply immediately as in (14b), attracting V to T. Finally, C may be Merged with TP, as in (14c).^{7}

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^{7} The nature of head movement is somehow problematic within the recent developments of the Minimalist Program. Chomsky (2001) actually suggests that head movement is a PF operation and that its overt effect on word order is explained on the basis of linearization that takes place at PF. However, see both Kotzoglou (2003) and Spyropoulos (2003), who convincingly argue that in Greek head movement belongs to the narrow syntactic component.

^{8} See Spyropoulos and Philippaki-Warburton (2001) for the EPP in Greek.
(14) a. Merge T, vP:

\[ TP \, T \, [vP \, [DP \, o \, janis] \, [vP \, v \, [VP \, efaje \, [DP \, tin \, turta]]]] \]

b. Move V:

\[ TP \, [TP \, V-v-T \, efaje \, [vP \, [DP \, o \, janis] \, [vP \, t_{v,v} \, [VP \, t_{v} \, [DP \, tin \, turta]]]] \]

c. Merge C:

\[ CP \, C \, [TP \, [TP \, V-v-T \, efaje \, [vP \, [DP \, o \, janis] \, [vP \, t_{v,v} \, [VP \, t_{v} \, [DP \, tin \, turta]]]] \]

Let us now see how the VOS order with object and subject focus is derived.

(15) = (2) \begin{align*}
& \text{efaje} & \text{tin turta} & o \text{ janis} \quad \text{(object focus)} \\
& \text{ate-3SG} & \text{the cake-ACC} & \text{the janis-NOM} \end{align*} \\
\text{‘John ate the cake.’}

(16) = (3) \begin{align*}
& \text{efaje} & \text{tin turta} & o \text{ janis} \quad \text{(subject focus)} \\
& \text{ate-3SG} & \text{the cake-ACC} & \text{the janis-NOM} \end{align*} \\
\text{‘John ate the cake.’}

In the light of Legate’s (2003) proposal, I would like to maintain that the crucial distinction between (2) and (3) – repeated here as (15) and (16) respectively – is that in (2) the object ‘tin turta’ ‘the cake’ moves out of the vP phase, whereas in (3) the object ‘tin turta’ moves within the vP phase. Thus, in (2) the object ‘tin turta’ ends up in a position above vP, while in (3) the object ‘tin turta’ ends up in a position within the vP.

If we accept the assumption that the NSR applies to the phase, then an element moving from a position final in the verb phrase out of the phase should bear primary stress (as in 2), while an element moving from a position final in the verb phrase within the same phase should not (as in 3). More specifically, the input to PF on the first phase of (2) is [efaje o janis tin turta], whereas the input to PF on the first phase of (3) is [efaje tin turta o janis tin turta].

The PF operation that deletes non-initial copies in a chain treats each phase as a separate unit. In (2) the DP ‘tin turta’ ‘the cake’ is a copy. The phase contains only one occurrence of this DP, and as a result, the PF operation that deletes non-initial copies in a chain cannot apply to it. The phase proceeds to the application of the NSR and the DP ‘tin turta’ is assigned primary stress. At a latter phase, this occurrence of ‘tin turta’ will be deleted in favour of a higher occurrence, where primary stress will be assigned. This is how (2), with primary stress on the object ‘tin turta’ ‘the cake’, is derived, i.e. this is how the VOS order with object focus is generated. In (3), on the other hand, the input to PF contains two occurrences of ‘tin turta’ ‘the cake’. This means that the PF operation that deletes non-initial copies can apply, and delete the lower copy. The phase proceeds to the application of the NSR and the DP ‘o janis’ 'John’ recei-
ves primary stress, since it constitutes the rightmost element in the verb phrase, i.e. it is in the lowest position in the c-command ordering. This is how (3), with primary stress on the subject ‘o janis’ ‘John’, is derived, i.e. this is how the VOS order with subject focus is generated.

5.1 Further questions

Two questions that immediately arise concern the trigger for these movements and the exact location (landing site) that they target. I am afraid I cannot offer an explanation for these two related issues at the moment. The only thing I can say is that probably some [Foc] feature is involved (see also Erteschik-Shir 2003).

Chomsky (2001) points out that in A’-movement there are easy cases, where there are grounds to believe that features of the probe and goal are involved. However, there are also other cases (e.g. topicalization, VP-fronting), where the postulation of features is much more stipulative. I suppose the examples under investigation belong to this category.

Finally, I think that independent evidence is needed from other areas, which will point to the fact that the proposed movement actually exists.

6. Conclusion

In conclusion, this paper constituted a first approximation to the derivation of the VOS order in Greek within the minimalist framework. It exploited the notion of phase, according to which syntactic structures are submitted for LF and PF interpretation, not all at once, but at various well-defined points in the derivation. These points are known as phases, or – in simple terms – completed syntactic units.

The advantages of the proposed phase based approach for word order variation are as follows: First, there is no need to postulate two completely different representations (see Section 3 above) for the VOS order, namely one for object focus and another for subject focus. Both realizations of this order can be captured within the recent advances of Minimalism just by employing different movement (outside of the phase vs. within the phase, respectively). In essence, this is desirable, since it contributes towards a more economical derivation. Second, we dispense with operations and projections that seem not necessary (such as p-movement or iTopP, see Section 3).

In the light of these facts, the present analysis seems appealing despite the fact that the exact mechanism involved in the triggering of the proposed movements remains to be explored.
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References


